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“A new bottling system”

media

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Introduction

- Project Description: To refill liquid Laundry Detergent Bottles instead of transferring to a Public Recycling Facility or discarding to a Landfill.
- This new system involves the reuse of plastic bottles

Topics of Discussion

- How do you set up a reusable bottling system?
- The Plan is to show you how it works and the potential benefits.

Method

Use refillable 30 or 55 gallon drums with spout nozzles attached (refer to drum diagram)

Drums at the bottling facility

Drums are transported to market by truck and off load using electric pallet jacks

In the supermarket drums will be loaded onto Aluminum or Stainless Steel Racks

Consumers will refill their plastic detergent bottles by turning the spout at the bottom of the drum

Plastic Detergent Containers will be labeled with the company trademark, contact number, and "DO NOT DISCARD"

Feasibility

- The idea is to produce less Plastic Detergent Containers.
Keep a minimum on store racks
- Less plastic containers amounts to lower energy costs for resin polymerization and molding
- You don't need to label your containers as much because you can apply labels to drums

Target Buyers

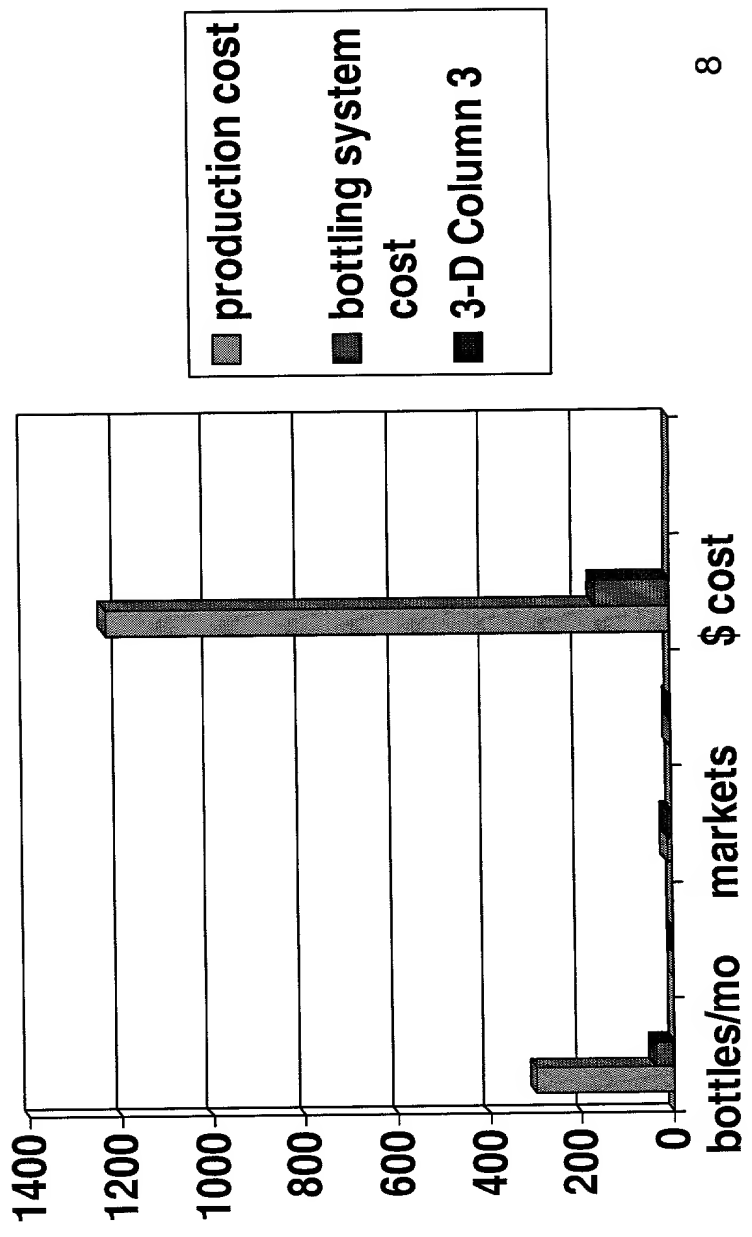
- “Consumers”
- Education and Communication
- Educating them that reusing these bottles saves Energy and reduces product cost
- Communicating with store management to put up store exhibits

Pilot Study

- Conduct this new bottling plan at several crowded supermarkets
- Market the system and inform consumers

Cost Benefit Analysis

- This graph shows the estimated cost of bottle production vs potential savings for reuse



What This Means

- This new system can be a powerful new tool for the bottling industry.
- It takes a tremendous amount of energy to recycle and re-mold these bottles. The proposed system will sufficiently reduce energy costs if carried out efficiently

	C	D	E	F	G	H	I
	Cost vs. Benefits of HDPE bottle	bottles/month	cost/bottle	supermarkets	lbs/bottle, L	\$ cost	\$ Benefits
1							
2							
3	estimate of current production cost per week	75	0.52	10	0.787	306.93	306.93
4	Estimate of costs with proposed bottling system	10	0.52	10	0.787	\$40.92	40.92
5	Cost Savings per Shipment (per week)						266.01
6		Bottles/month	cost /bottle	supermarket	lbs/bottle, L	\$cost	
7	Estimate of current production cost per month	300	0.52	10	0.787	1227.72	1227.72
8	Estimate of cost with proposed bottling system	40	0.52	10	0.787	163.7	-163.7
9	Cost Savings per shipment (per month)						1064.02
10							
11	10 b/wk*0.52/lb*0.787 lb/b*10 st.= \$40.92/wk						% savings
12	75 b/wk*0.52\$/lb*0.787 lb/b*10 st.= \$306.93/wk						benefits
13							86.67
14	Source: E. Rojas, C.I.W.M.B., 9-28-2000						
15	Blow molded resin cost (dairy) 0.50-0.53/lb						
16							
17	Source: G. Howland, Scale/weight-Purex Bottle 3.78 L,						
18	Weight Watchers Scale, model#907/9204						
19							